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REPORTS NEW PRODUCTION EQUIPMENT, METHODS

USE ELECTRIC-SPARK FOR HARDENING CUTTING TOOLS -- Moskovskiy Komsomolets, No 129, 22 Oct 49

The electric-spark method of hardening cutting instruments, parts of heavy machines, etc, is practiced in the "Elektrosila", "Krasnyy Vyborzhets," the imeni Stalin, the Kirov, and other plants in Leningrad. Production of cast tools is growing, and spectral analysis of metals is being more widely applied.

DEVELOP NEW PRODUCT, FORMULA -- Leningradskaya Pravda, No 241, 12 Oct 49

A new emulsion for use in thread-milling has been developed at the Plant imeni Karl Libknekht in Leningrad. It doubles the life of the miller. A new-formula core binder used at the plant substitutes shale oil for the more expensive drying oil.

ACHIEVEMENTS AT KALIBR PLANT -- Vechernyaya Moskva, No 246, 15 Oct 49

In 1948, Communist Valentin Mikhailovich Volkov, Director of the Bureau of Fittings and Accessories at the Kalibr Plant in Moscow, developed a method for mechanical finishing of sliding calipers. As a result, the entire shop production was converted to the conveyer method. Somewhat later he aided in putting into operation diamondless truing devices for grinding wheels.

He designed a spiral threading device at the end of 1948 which saved the plant 500,000 rubles.

In 1949, Volkov effected complete mechanization of operations in the micrometer shop, while a special machine tool he designed greatly improved the quality of the micrometers.

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POCKET MICROSCOPE SIMPLIFIES INSPECTION -- Kommunist, No 258, 1 Nov 49

The Leningrad Engineering Economics Institute has developed a 70-power pocket-size microscope. It is intended for use in checking the surface of finished parts against the measuring standard. Called the "Malyutka," it will be put into series production.

PRODUCE SCALES FOR WEIGHING TEA -- Zarya Vostoka, No 199, 9 Oct 49

The Batumi Machine-Building Plant imeni Beriya has just produced its first model semiautomatic scales for weighing tea, at the request of tea-distributing centers. It is also about to put out an experimental model of a continuous-action roller for such factories.

DESIGN CRUSHER FOR METAL CHIPS -- Leningradskaya Pravda, No 239, 9 Oct 49

At the Leningrad plant imeni Sverdlov, in response to a contest announced by the Ministry of Machine-Tool Building, the plant's engineers designed a universal crusher for metal shavings. This machine has been subjected to initial tests, and a finished model will soon be put out.

Two engineers, Danilean and Zazerskiy, are now working on a high-speed chuck for the lathe, which will permit the operator to fix the machined part, or remove it, by merely pushing a button.

PLANT BUILDS OWN MACHINE TOOLS -- Leningradskaya Pravda, No 239, 9 Oct 49

There was a time when the Vulkan Plant had no machinery for making iron drums and other large parts. It had no machine-tools for specific operations such as dynamic balancing, flange cutting, etc. There was no means of obtaining these; therefore, the plant had to build its own.

In connection with the manufacture of carding machines, the plant built special machine-tools for the construction of drums, which are the most difficult precision parts to construct because they embrace operations like stripping, boring of cross pieces, installing the shaft, dressing, static balancing, reaming of hundreds of apertures, etc. Thus, ten different types of machine-tools had to be built, which made up the production line for the drum. As a result, the plant was able to proceed to serial production of drums without resorting to the purchase of scarce and expensive universal equipment. Moreover, the quality of the product improved at the same time.

Special milling machines were also built for the flats of carding machines. This increased production 7-6 fold.

At present, the plant has more than 50 special machine tools. -- N. Volyntsev, chief technologist, Vulkan Plant

COMPLETES PLAN, PRODUCES NEW TOOLS -- Vechernyaya Moskva, No 263, 4 Nov 49

The Moscow Tool Plant today completed the Five-Year Plan ahead of schedule.

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This plant has been particularly productive during the past 1½-2 years. During thir period there has been perfected the production of such complex items as pipe and sleeve threading chucks, large-size sectional broaches and some other types of high-duty tools. The weight of these unique parts in exceptional instances reaches nearly 2 tons and the length exceeds 1½ meters.

LEADING SHOP BEATEN IN CLOSE RACE -- Vechernyaya Moskava, No 260, 1 Nov 49

The gear-cutting-tool shop of the Moscow Tool Plant has recently overtaken the broach shop in the socialist competition for production.

During the past 10 months the gear-cutting tool shop has put into production helical-gear millers for a Novosibirsk plant, precision millers for cutting turbine wheels, and other high-production tools. The shop has fulfilled the October plan 110 percent.

MACHINE-TOOL PLANT MODERNIZING METHODS -- Leningradskaya Pravda, No 239, 9 Oct 49

During 1949 the moulders in the Elektroapparat Plant perfected the process of chill casting of aluminum alloys. By the new method, they have eliminated a number of labor-consuming, hand-performed types of machining, which has improved the outer appearance and quality of the product. The foundry shop has also mastered pneumatic tamping, sandblasting, and trimming.

In the turret lathe section, machining is now done on multispindle automatic machines; some parts to be machined are transferred from ordinary and turret lathes to single-spindle automatic machines.

The plant continues to apply in increasing measure the process of stamping. In the past 8 months, more than 400 dies have been made. Recently, a number of processes were transferred from hot to cold stamping, among them, switch bases. This has resulted in an annual saving of 300,000 rubles.

Much has been done in the plant to speed up cutting, boring, milling, reaming, and turning. For the first time the method of electrometallization through pulverization which permits a saving of hundreds of kilograms of tin, and increases the durability of parts working under pressure was introduced.

The tool makers are trying to extend the application of the anode-mechanical method of grinding cutters and millers, the electric-spark method of hardening tools, thread-grinding without hand finishing etc. This plant was the first in Leningrad to grind hard alloy cutters by the electric contact method.

Not content with the above, the plant will strive, in addition, for the following: to speed up metal machining in the machine shop and hot and cold stamping in the billet shop; to master the process of automatic welding of complex parts; to mechanize a number of hand operations connected with transformer coil winding; and to build special machine tools for electric-spark broaching of holes. -- K. Bulgakov, chief engineer, Elektroapparat Plant

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